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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,140	09/30/2003	Leonard J. Stulc	SAM0020/US	6403

7590 10/04/2006

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EXAMINER
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KHAN, AMINA S

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/676,140	STULC, LEONARD J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Amina Khan	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/13/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to applicant's amendments filed on July 13, 2006.
2. Claims 1-4 and 6-13 are pending. Claims 5 and 14-23 have been cancelled. Claims 1,9,10,12 and 13 have been amended.
3. In view of applicant's arguments, the rejection of claims 1,5-8 and 12 under 35 USC 102(b) as being anticipated by Chechak (GB 1,343,709) is withdrawn.
4. In view of applicant's amendments, the 35 USC 112 rejection of claims 1-13 is withdrawn.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

Art Unit: 1751

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hall (US 4,130,435).

Hall teaches ink compositions prepared by reacting a single or plurality of water-soluble anionic dyes with a single or a plurality of water-soluble cationic dyes (column 2, lines 15-45). In example 6 (column 4, lines 50-65), Hall teaches reacting disulfonated copper phthalocyanine with CI Basic Blue 7 in the presence of 10% aqueous sodium hydroxide. In example 5 (column 4, lines 35-50), Hall teaches reacting disulfonated copper phthalocyanine with Crystal Violet in the presence of 10% aqueous sodium hydroxide. Hall further teaches that anionic dyes such as azo, phthalocyanine and anthroquinone dyes may be used (column 2, lines 15-25). Hall further teaches cationic dyes such as various basic blue and violet dyes (column 2, lines 30-44). Hall further teaches that the ball-point pen ink is substantially insoluble in water (column 1, lines 24-46).

Regarding the claimed limitations of a color difference between the anionic and cationic dyes of at least about 10  $\Delta E^*$  units, complexes with molecular weights of less than 5000 or 3000 Daltons, and a water solubility of less than 100 parts per million, Hall is silent towards these properties and does not explicitly teach these limitations. However, it is reasonable to presume that the said properties are encompassed by the

Art Unit: 1751

teachings of Hall because the presumption is supported by the use of similar dyes and similar colorless counter ions in similar percentages to produce similar inks to those instantly claimed. The burden is on the applicant to prove otherwise. In re Fitzgerald, 205 USPQ 594.

In the alternative, the claimed limitations of a color difference between the anionic and cationic dyes of at least about 10  $\Delta E^*$  units, complexes with molecular weights of less than 5000 or 3000 Daltons, and a water solubility of less than 100 parts per million would obviously have been provided by the process as disclosed by Hall, because achieving the properties would have been a matter of optimizing a result effective variable. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Hall clearly teaches a broad range of anionic and cationic dyes and producing inks which are substantially insoluble in water.

7. Claims 1-4 and 6-13 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mueller et al. (US 2,922,690).

Mueller et al. teaches salt like dyestuff compositions prepared by precipitating dissolved anionic dyes with dissolved cationic dyes (column 1, lines 15-22). Mueller et al. further teaches replacing part of the cationic and/or anionic dyestuff or dyestuffs by colorless cationic and/or anionic substances (column 2, lines 45-50). Mueller et al. further teaches replaced with a colorless compound is recommended, for example, when, in the use of a dyestuff salt obtained by the reaction of equivalent amounts of cationic and anionic dyestuffs, the shade of color for example of the cationic dyestuff is

more pronounced than is desired in the final dyeing by reason of preponderant color strength (column 2, lines 50-56). Mueller et al. further teaches that dyestuffs such as anthraquinone and azo dyestuffs may be employed (column 3, lines 1-10). Mueller et al. further teaches a plurality of anionic or cationic dyes may be used (column 3, lines 15-20). Mueller et al. further teaches that the dyestuffs produced are dispersion dyestuffs (columns 3-7, examples).

Regarding the claimed limitations of a color difference between the anionic and cationic dyes of at least about 10  $\Delta E^*$  units and a water solubility of less than 100 parts per million, Mueller is silent towards these properties and does not explicitly teach these limitations. However, it is reasonable to presume that the said properties are encompassed by the teachings of Hall because the presumption is supported by the use of similar dyes and similar colorless counterions in similar percentages to produce similar dyestuffs to those instantly claimed. The burden is on the applicant to prove otherwise. In re Fitzgerald, 205 USPQ 594.

In the alternative, the claimed limitations of a color difference between the anionic and cationic dyes of at least about 10  $\Delta E^*$  units and a water solubility of less than 100 parts per million would obviously have been provided by the process as disclosed by Mueller et al., because achieving the properties would have been a matter of optimizing a result effective variable. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Hall clearly teaches a broad range of anionic and cationic dyes and producing dispersion dyestuffs which are conventionally defined as substantially insoluble in water.

***Response to Arguments***

8. Applicant's arguments regarding Mueller et al. have been fully considered but they are not persuasive.

The applicant argues:

"Because the ionic dyes dissociate for this reaction with the respective fibers in aqueous dye baths, the dyestuff as described fails to meet or suggest the claims as presently amended, which require that the compounds have a water solubility of less than 100 parts per million. Further, because the Mueller dyestuffs are designed to dissociate, the respective dye components and colorless counterion component are not ionically complexed with each other in a ratio to form an ionically complexed colorant compound exhibiting an apparent color, as required in the present claims."

The examiner respectfully disagrees because in all the examples of Mueller et al. dispersion dyestuffs are taught. The conventional definition of a disperse dye is one which has low solubility in water. Furthermore, the applicant cites that the dyestuffs dissociate during the dyeing or printing process, a condition that is not representative to the state of the complex prior to dyeing. One would expect that similar compositions treated by similar methods would undergo similar reactions. Since Mueller et al. clearly teaches anionic and cationic dyes reacting in combination with anionic or cationic colorless substances employed to control shade of color to produce dispersion dyestuffs, one would expect the formation of similar complexes with similar water

solubilities to those instantly claimed absent a showing of unexpected results. The rejection of the claims is maintained.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone



Art Unit: 1751

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Amina Khan*

Amina Khan  
Patent Examiner  
September 26, 2006

*Lornam M. Ducyon*

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PRIMARY EXAMINER